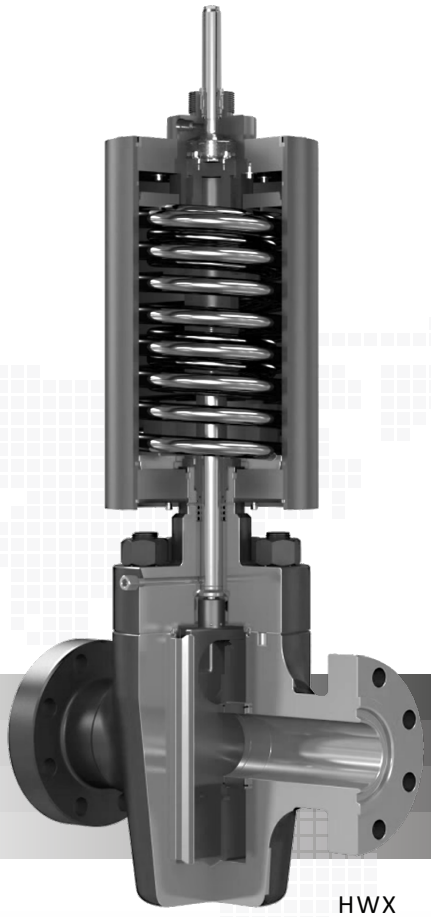
HYDRAULIC WIRE CUTTING

Model HWX

Hydraulic Wire Cutting Actuator

For surface safety and other energy production, distribution and storage applications.



HWX

- API 6A Monogrammed
- Highest Quality
- Delivered to Exact Customer Specifications
- Engineered for Years of Trouble Free Service

Model HWX - Hydraulic Wire Cutting Actuator

The Model HWX actuators feature a robust dual spring system, engineered to deliver the necessary return force for reliably shearing slickline, wireline, logging cable, or stainless steel cable in standard wellhead applications, even with zero valve body pressure.

Model HDX Applications

Omni Model HWX actuators are designed to operate surface safety or shutdown valves on oil & gas wellhead, transmission, storage, manifold or other applications where fail-safe and wirecutting capabilities are required.

HWX

Features

Flexibility

The HWX actuator can be adapted to operate valves from any manufacturer (interface information is required) and can be delivered with alternate materials of construction if required by field conditions.

Wire Cutting Capability

The HWX provide return force capable of shearing slick-line, wireline, logging or stainless steel cable in typical wellhead applications with 0 valve body pressure.

Non-Pressurized Actuator Housing

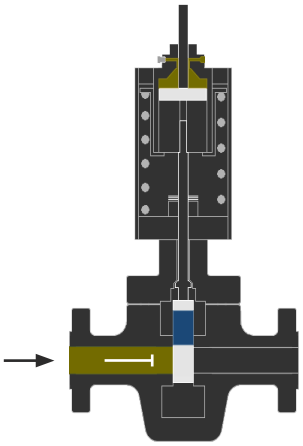
The HWX actuators have outer housings that are structural and protective only – they are not under hydraulic pressure. This helps protect personnel and equipment in the event of damage to the outer housing.

Corrosion Protection

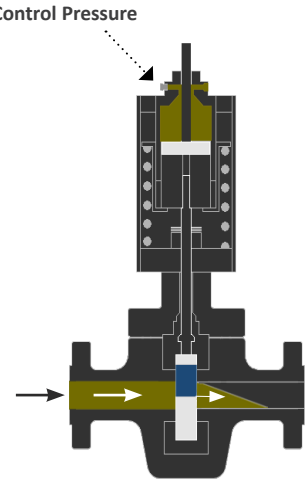
The HWX's are internally and externally coated to prevent corrosion due to environmental conditions. All internal components are either stainless steel or are coated to prevent corrosion due to any contamination that might be present in the control pressure source.

Model HWX - Operational Stages

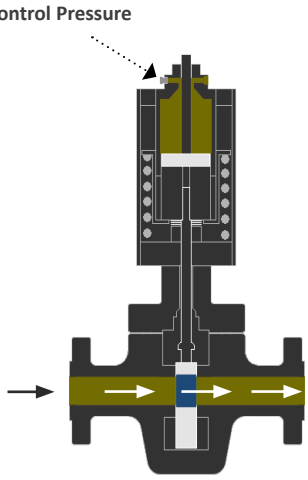
Fail "**CLOSED**" operation is depicted. Fail "**OPEN**" operation is available upon request.



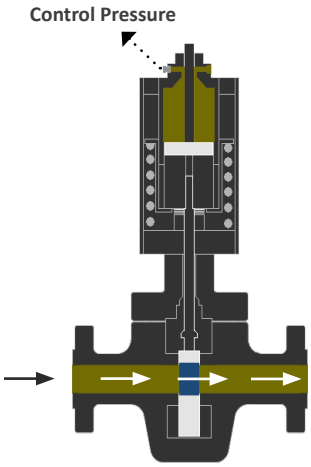
When no control pressure is applied to actuator, valve is in **CLOSED POSITION** (Gate all the way up)



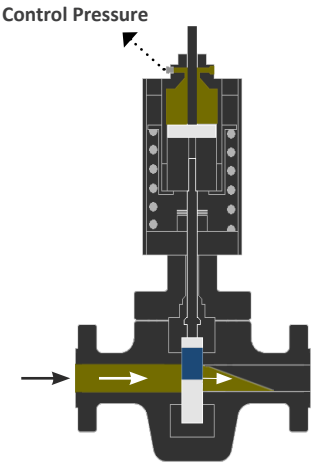
Upon application of adequate control pressure to the actuator, valve begins **OPENING** (Gate moving down)



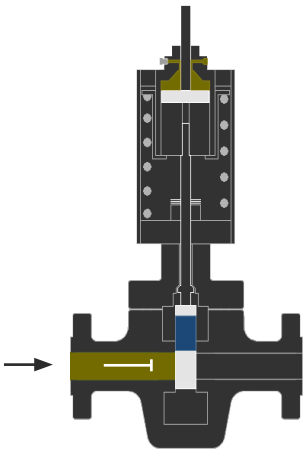
With continued application of adequate control pressure, valve moves to the **FULLY OPEN** position (Gate all the way down)



Valve remains in **FULLY OPEN** position as long as adequate control pressure is present (Gate all the way down)



Upon loss of control pressure, valve begins **CLOSING** (Gate moving up)



Valve **FULLY CLOSES** & remains closed until application of control pressure to the actuator (Gate all the way up)

Standard Actuator Specifications		
Maximum Operating Pressure	4,000 PSI	Pressure relief device on actuator is set at 4,000 PSI
API Material Class	AA/BB/CC	Not appropriate if control source contains H2S (is sour)
API Temperature Rating	P (-20 F to 180 F)	(-29 C to 82 C)

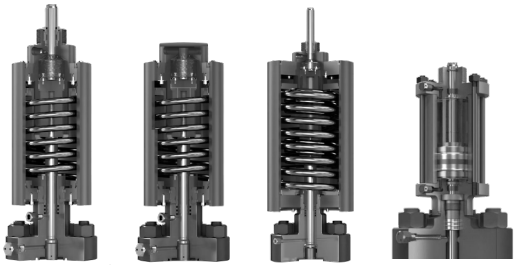
Available in API pressure ratings of between **2,000** and **15,000** psi.

Can be used in conjunction with our **Hydraulic**, **Pneumatic** or **Electric** actuators from most manufacturers.

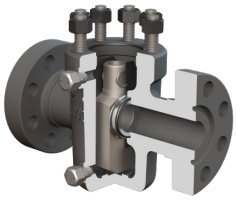
Model HWX - Hydraulic Wire Cutting Actuator

Valve Body Specifications

- Model CS-R and FS-R surface safety valves with Model HWX actuators are available in most API 6A material classes, PSL, PR and Temperature Ratings.
- Model HWX actuator/bonnet assemblies are built to customer specifications and are also available in most API 6A Material Classes. PSL, PR and Temperature Ratings.
- All Model CS-R and FS-R surface safety valves with Model HX actuators are API 6A 21st Edition monogrammed equipment.
- All Model CS-R and FS-R surface safety valves with Model HWX actuators have successfully passed the API 6AV1 - Validation of Safety and Shutdown Valves for Sandy Service test and can be designated as API 6A-SSV Class 1 or Class 2 for use in Federal Offshore Waters.

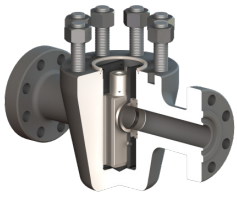


Model HX | Model HXN | Model HWX | Model HDX



Model CSR
Gate Valve

Bore Size	Pressure (psi)	API Ring #
2 1/16"	2,000	R23
	3-5,000	R24
2 9/16"	2,000	R26
	3-5,000	R27
3 1/8"	2-3,000	R31
	5,000	R35
4 1/16"	2-3,000	R37
	5,000	R39
5 1/8"	2-3,000	R41
	5,000	R44
7 1/8"	2-3,000	R45
	5,000	R46



Model FSR
Gate Valve

Bore Size	Pressure (psi)	API Ring #
1 13/16"	10,000	BX151
	15,000	BX151
2 1/16"	10,000	BX152
	15,000	BX152
2 9/16"	10,000	BX153
	15,000	BX153
3 1/16"	10,000	BX154
	15,000	BX154
4 1/16"	10,000	BX155

API-6A Specifications			
PSL-1 / PSL-2	(All Bore Sizes)	PSL-1 / PSL-2 / PSL-3 / PSL-3G	(All Bore Sizes 10,000 psi)
PSL-3 / PSL-3G	(Bore Sizes 2 1/16" - 4 1/16" only)	6A PSL-3 / PSL-3G	(All Bore Sizes 15,000 psi)
SSV Class 1	(All Bore Sizes)	6A SSV Class 1	(All Bore Sizes 10,000 or 15,000 psi)
SSV Class 2 - Sandy Service	(All Bore Sizes)	6A SSV Class 2 - Sandy Service	(All Bore Sizes 10,000 or 15,000 psi)

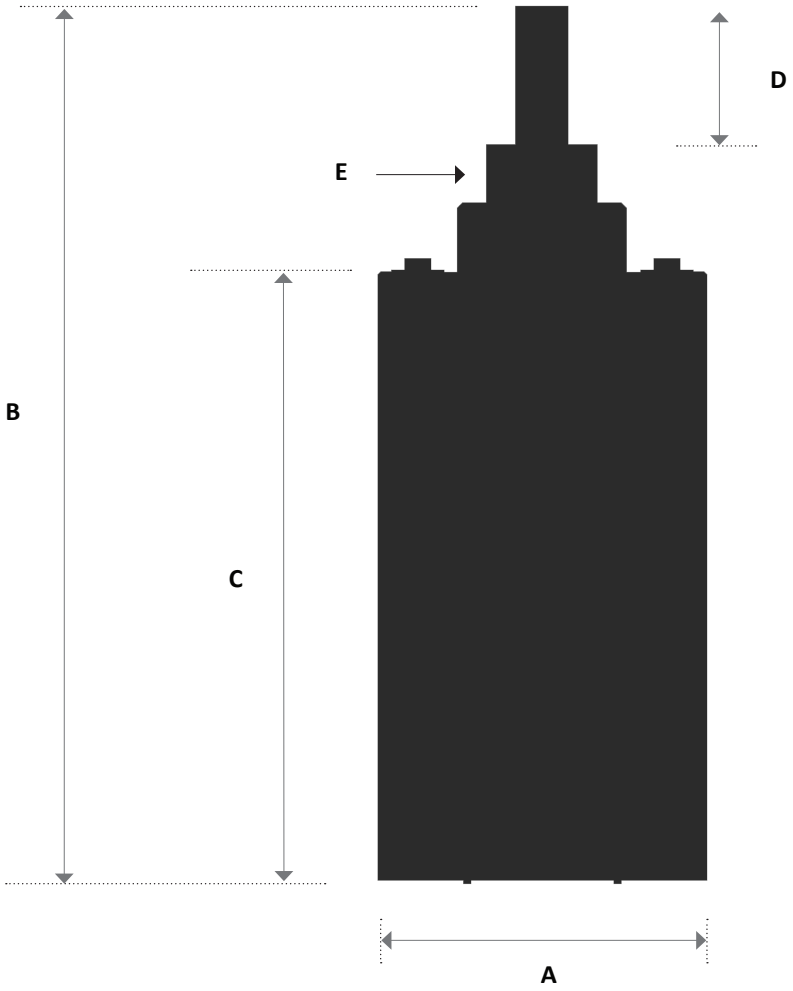
API-6A Non-NACE Trims				API-6A NACE Trims						
API Mat'l Class	AA	BB	CC	DD	EE-0,5	EE-1,5	EE	FF-0,5	FF-1,5	FF
Service	General	General	General	Sour	Sour	Sour	Sour	Sour	Sour	Sour
Trim	Standard	SS Trim	Full SS	Standard	SS Trim	SS Trim	SS Trim	Full SS	Full SS	Full SS
Corrosive	No	Slightly	Moderate	No	Moderate	Moderate	Moderate	Highly	Highly	Highly
Avail API Temp	L to X	L to X	P to X	L to X	L to X	L to X	L to X	P to X	P to X	P to X

Technical Notes

1	Nitriding is standard on all gates and seats. Tungsten Carbide, HF6 or other hardfacing techniques are also available.
2	Corrosion resistant alloy per NACE MR0175/ISO 15156.
3	Valves with API Temp Rating of X or Y will have the working pressure de-rated as per API 6A, Annex G
4	Teflon inserts on seat faces are standard in Omni valves. Metal-to-metal seats are available upon request.
5	Charpy impact test results are provided as required by API according to the temperature rating and material class.
6	Materials for sour service trims conform to latest edition of NACE MR0175. The acceptable limit of H2S should be noted after the trim level designation. Materials of construction for 0,5 and 1,5 are shown in the chart above however other partial pressure limits up to and including No Limit are available upon request. If an acceptable level is not noted in the valve trim/API Material Class designation it is understood to be "No Limit". 0,5 = 0.5 psi maximum limit of partial pressure of hydrogen sulfide 1,5 = 1.5 psi maximum limit of partial pressure of hydrogen sulfide
7	Omni reserves the right to use material class ZZ when customers request materials of construction that do not comply with current NACE MR0175/ISO standards.
8	Valves with API Temp Rating of X or Y will have high-temperature graphite packing and metal-to-metal sealing.

Model HWX - Hydraulic Wire Cutting Actuator

Actuator Specifications



Available Sizes

Actuator Model	Size	Max Valve Stroke	A		B		C		D		Thread	Swept Volume		Weight	
			in	mm	in	mm	in	mm	in	mm		in (3)	cm (3)	lbs	kgs
HWX-40	4.5”	4 1/16”	13.73	349	32.21	818	23.50	597	5.51	140	3.0” - 8UNC 2A	70	1,147	565	256
HWX-60	6.5”	7 1/16”	16.50	419	36.00	914	25.00	635	8.10	206	3.0” - 8UNC 2A	258	4,228	842	382
HWX-90	9”	7 1/16”	19.75	502	39.00	991	28.00	711	8.10	206	3.0” - 8UNC 2A	590	9,668	965	438
HWX-110	11”	7 1/16”	22.00	559	42.00	1,067	31.00	787	8.10	206	3.0” - 8UNC 2A	944	15,469	1,289	585

* Actual closing times will depend on the configuration of system used to pipe fluid to and from the actuator as well as whether or not a quick exhaust valve is used.

HYDRAULIC DOUBLE ACTING

Omni Valve
4520 Chandler Road | Muskogee, OK | 74403 - USA

(918) 687-6100
(918) 687-6105
sales@omnivalve.com
quality@omnivalve.com

HWX

RFQ REQUEST FOR QUOTE
omnivalve.com/rfq.php

Product Warranty

All products quoted are subject to omni valve's limited product warranty available at: omnivalve.com/warranty.php